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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,440	11/27/2001	Marteijn De Jong	NL 000668	9727

7590 04/09/2003

Corporate Patent Counsel
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EXAMINER

GEMMELL, ELIZABETH M

ART UNIT PAPER NUMBER

2882

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/995,440

Applicant(s)

DE JONG ET AL.

Examiner

Beth Gemmell

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt is acknowledged of the preliminary amendments filed 27 November 2001.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "cross-section whose internal outline has a long axis/short axis ratio which first increases, goes through a maximum and then decreases" (claim 4, lines 3+) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 4 is objected to as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear to the examiner exactly what the applicant means by "a cross-section whose internal outline has a long axis/short axis ratio which first increases, goes through a maximum and then decreases" (claim 4, lines 3+). Therefore, the examiner has interpreted and treated the claim below as the cross section becoming larger throughout the deflection system.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Sano (US Patent 6,307,314).

Re claims 1 and 2: Sano teaches in figure 1 and throughout the disclosure, a picture display device (1) comprising a cathode ray tube (11) having an elongated display screen with a long axis and a short axis (column 4, lines 66+), a cone portion (F) whose cross-section has an elongated shape with a long axis and a short axis (column 10, lines 39+), a neck (N) comprising means for generating at least one electron beam (28), and a deflection system mounted on the cone portion for generating electromagnetic fields for deflecting the electron beams (20), characterized in that the deflection system is arranged to scan the electron beams along lines substantially parallel to the short axis of the display screen (vertically, column 6, lines 45+). Sano further teaches the part of the cone portion which is under the deflection system having at least one cross-section whose internal outline has a long axis/short axis ratio which is larger than or equal to the long axis/short axis ration of the display screen (column 10, lines 60+). This is further evidenced by the aspect ratio (A_{scr}) of the screen being 4:3 (1.3) and the diameter of the horizontal axis of the yolk portion being 35mm and the

diameter of the vertical axis being 28.4mm. Therefore, the ratio $A_c = (L_v/S_c) = (70\text{mm}/36.8\text{mm}) = 1.9$, which is larger than the aspect ratio of the screen (1.3).

Re claim 3: As evidenced above, Sano teaches $A_c = 1.9$ and $A_{scr} = 1.3$. Therefore Sano further teaches: $(A_c - 1)/(A_{scr} - 1) = (1.9 - 1)/(1.3 - 1) = (.9/.3) = 3$ which is ≥ 1.1 .

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sano, of record, in view of Tsuneta et al. (US Patent 3,731,129).

Sano teaches all of the claimed limitations as disclosed above.

However, Sano fails to teach a cone portion between the reference deflection plane and the end of the deflection system which is nearest to the display screen having a cross-section whose internal outline has a long axis/short axis ratio which first increases, goes through a maximum and then decreases.

Tsuneta et al. teaches in figures 5B and C and throughout the disclosure, a cone portion between the reference deflection plane and the end of the deflection system which is nearest to the display screen having a cross-section whose internal outline has

a long axis/short axis ratio which first increases, goes through a maximum and then decreases for the purpose of increasing the width of the deflection angle and reducing the convergence power (column 2, lines 44+).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the cone cross-section of Tsuneta et al. with the system disclosed by Sano because by increasing the width of the deflection angle and reducing the convergence power, clearer images can be reproduced.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sano.

Sano is silent as to the a screen ratio greater than $4/3$, specifically greater than or equal to $16/9$, within a system having a cross-section whose internal outline has a long axis/short axis ratio which is larger than or equal to the long axis/short axis ratio of the display screen.

However, Sano does teach the use of an aspect screen ratio of $4/3$, $16/9$ or $3/4$ (column 9, lines 37+).

Therefore, one of ordinary skill in the art at the time the invention was made would have recognized that in using an aspect ratio greater than $4/3$, specifically greater than or equal to $16/9$, the proportions of the images displayed would be well within the acceptable range of distortion therefore producing an image acceptable by the consumer.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sano, of record, in view of New (US Patent 6,465,944).

Sano teaches all of the claimed limitations, including the use of a wider deflection angle, however it fails to teach of a maximum deflection angle being larger or equal to 120 degrees.

Within the field of endeavor, it is desirable to use a deflection angle equal to or greater than 120 degrees for the purpose of reducing the deflection power.

Further, New teaches in column 6, lines 41+, a maximum deflection angle of 135-140 degrees which is greater than 120 degrees and therefore falls within the range disclosed by the applicant.

Hence, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a deflection angle of greater than or equal to 120 degrees because it would reduce the deflection power (column 6, lines 42+).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent 5,763,995
- US Patent 5,962,964
- US Patent 6,087,767

Art Unit: 2882

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Gemmell whose telephone number is (703) 305-1937. The examiner can normally be reached on Monday-Thursday 6:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (703) 305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



DAVID V. BRUCE
PRIMARY EXAMINER

emg
April 2, 2003